

UDC: 781

## CORRELATION COEFFICIENT BETWEEN EMPLOYMENT AND CONSUMPTION IN KOSOVO 2003 – 2009

*Arburim Shabani, MSc**Arsim Gjinojci, MSc**Besim Asllani, MSc*

PTK JSC, Pristina, Kosovo

TrainKos JSC, Pristina, Kosovo

---

### Abstract

Challenges that faces the labor market in Kosovo and living standards of kosovars are the focus of researches of many kosovar and international institutions. High level of unemployment and household consumption which is mainly oriented in consumption of food were specific for Kosovo society. The aim of this paper is to analyse the labor market and living standard in Kosovo during the years 2003 - 2009. The goal of the survey is achieved by measuring the relationship between variables of the labor market and living standard. The data for analysis are used from annual and periodical reports of the Statistical Office of Kosova and publications from local and international research institutions. Initially, average levels are found for employment and unemployment in Kosovo during the years 2003 - 2009 by total employment, education and age. Also, the comparison has been made for the level of employment in Kosovo with some of the region countries and EU countries. The relationship between variables of employment and household consumption is measured by method of correlation coefficient. Findings show that household consumption in Kosovo is changing from year to year, being transformed from the dominance in food consumption, in the consumption of housing, clothing and transportation. Also urban households and households with higher education are increasing their budget for recreation, hotels, restaurants and health care.

---

**Keywords:** Labour market, living standard, employment, unemployment, consumption

## **1.Introduction**

Labor market and living standard in Kosovo are one of the among issues and concerns of Kosovar society. Actions of various local and international institutions after the conflict (1999), has shown interest on improving the situation in one or another area through this period of time. However, even today it still remains among the major concerns.

For many years Kosovo is facing a high level of unemployment while household consumption for a long time was oriented in consumption of food and the necessary items.

Consequently, this research paper aims to measure the link between the labor market and living standard in Kosovo during the years 2003-2009. Study period of seven years was selected because of access to data and a period of seven years is a good base to give an estimation about the problem.

## **2.Literature review**

### **2.1.Labour market in Kosovo**

Relative size of the workforce population is the most important indicator of labor market. This includes persons between 15 and 64 years old who constitute the potential available workforce. According to Statistical Office of Kosova (2009) available workforce in Kosovo is 64.0%. Kosovo has a relatively "young", population with 1 /3 of the population under 15 years old and 7.8% of the population over age 65.

As much as 32.3% of the population in Kosova is under the age of sixteen and 63% is aged between 16 and 64 years old. This determines the extent of the labour supply, and the labour force inflows in Kosova are very significant. A young population and large-scale emigration constitute the two most important determinants for the labour force. (Riinvest, 2003)

Data from the annual report of the Statistical Office of Kosova shows that employment rate in Kosovo (for 2009 year) is about 26.4% of the working age population (16-64 years old), while unemployment is about 45.4%.

According to Blanchard and Justin (2000) unemployment rates have evolved through significant structural changes associated with social, demographic and labour market developments.

Commonly used indicator for summarizing labour market well-being is the unemployment rate.

High unemployment may also have an adverse effect on growth because it reduces the pool of savings available for investment (Bean and Pissarides 1993).

Data from the Department of Labour and Employment (DLE) of the Ministry of Labour and Social Welfare (MLSW), show that the number of the registered jobseekers in Kosovo in late 2009 was close to 339,000 (Mustafa, Isak 2011),

Over 25 thousand new jobseekers were registered in the Department of Labour and Employment (DLE) per year during 2003 – 2009.

## **2.2.Living standard in Kosovo**

Living standard concerns the physical circumstances in which people live, the goods and services they are able to consume, and the economic resources they can access to exercise choice about how they live their lives. This consist on information about household which includes housing, consumption and expenditures. Information for the individuals includes demographics, employment, remittances, expenditures for education, health and other income.

Kosovo faced with extremely low standard of life, especially in the last decade.

The consequences of the conflict on the living standards of the population were severe, with the collapse of the industrial sector, the paralysis of agriculture, and extensive damage to private housing, education and health facilities and other infrastructure. In addition, the conflict brought massive population displacement both within Kosovo and abroad (The World Bank).

## **3.Aim of the study**

The aim of this paper is to analyse the labor market and living standard in Kosovo during the years 2003 – 2009 and give a recommendations about challenges of labour market in Kosovo. The goal of the study is achieved by analysing data for labour market (employment, employment by education and by age group), living standard (consumption by category of household and individuals) and measuring the relationship between variables of the labor market and living standard.

## 4.Data

For the preparation of this paper are used existing data from the Statistical Office of Kosovo. From labour market statistics prepared by the Statistical Office of Kosova each year, are used data for employment including employment by education and employment by age group for a period of seven years. Data are used also for the living standard in Kosovo (consumption), by which is measured relationship between some variables with the coefficient of correlation.

### 4.1.Data analysis

#### 4.1.1.Labour market

Initially, average levels are found for employment in Kosovo during the years 2003 - 2009 by total employment, employment by education and by age group. Changes of employment rate from year to year are interpreted.

The comparison has been made by the level of employment in Kosovo with some of the region countries and EU countries.

General consumption in Kosovo during years 2003 – 2009, is presented by the category of consumption for household and per capita. The data are analyzed and interpreted by years and categories.

The relationship between some variables of employment and household consumption is measured by method of coefficient of correlation.

**Table 1. Employment in Kosovo 2003 – 2009 by Total Employment, Employment by Education and Employment by Age Group, (%)**

Year	Total Employment	Education			Age group			
		<upper secondary <sup>1</sup>	upper secondary <sup>2</sup>	tertiary <sup>3</sup>	15-24	25-54	55-64	65+
2003	25.3	12.5	37.1	75.2	11	35	20	
2004	27.9	14.2	39.1	80.7	22	38	24.5	2.5
2005	28.9	14.4	38.1	76.2	11	38.5	26	3.5
2006	29	14.6	36.7	74.7	12	38	27	2.5
2007	26.5	12.8	32.7	74.7	9.7	36	25	2.5

<sup>1</sup> without education, 1-4 grade of elementary education, 5-7 grade of elementary education, elementary education (completed)

<sup>2</sup>secondary education

<sup>3</sup>high-school, university, academy, master and doctorate

2008	24.3	8.7	33.8	77.2	8	33	24	1.5
2009	26.4	9.3	34.9	76.9	7	35	28	3
<b>Average</b>	<b>26.90</b>	<b>12.36</b>	<b>36.06</b>	<b>76.51</b>	<b>11.63</b>	<b>36.21</b>	<b>24,93</b>	<b>2.58</b>

*Datas from annual reports of: Labour Market in Kosovo 2003, 2004, 2005, 2006, 2007, 2008 and 2009*

The level of employment in Kosovo has changed through the years. From the Table 1 we can see average levels of employment (in %) for the period 2003-2009 which is about 26.90% of total employment.

Employment rate in percentage has shown increasing level during years 2003 to 2006. Year 2007 shows a decrease about 8.6% while in 2008 it is dropped down by about 8.3% . Year 2009 shows a slight increase on level of employment by 8.64%.

Employment by education for the three groups shows a tendency of increase on the first surveyed years. Employees by education <Upper Secondary in 2007 and 2008 tend to fall since the year 2009 shows an increase by around 6.89%.

Upper Secondary and Tertiary had an increase level in the years 2008 and 2009 at about 3.36% and 3.25%.

From the category of employment by education Tertiary has the highest level of average with 76.51%, followed by Upper secondary with 36.06%.

While we have a high rate of people with no education or incomplete primary education (in average about 60% of the population) only 12.36% of them are employed.

Low level of employment with <upper secondary education is as a result of the economy of Kosovo which is oriented on the economy of trade and services whereas people belonging this category do not have much opportunities and are limited for a certain industries whom requires the actual capabilities they do posses.

It can be seen that over 36% of people with secondary education have been employed, whereas, people with higher education, which constitutes only 7% of the total population, have better chances of finding job in Kosovo. 76.5% of workforce belonging in this category has been employed in the surveyed period. They also have a greater stability, and are unaffected by fluctuations in the labor market.

There is a clear relationship between employment and education. The higher level of education, oppurtunities are greater for employment.

Age group 25-54 constitutes about 36.21% of employees in average which is followed by 55-64 age group with 24.93. Rates vary through the surveyed years and by age group. Most of them show decrease level in 2007 and 2008.

#### **4.1.2.Comparison of employment in Kosovo, with some EU countries and countries in the region**

Employment rate in Kosovo with only 26.1% is at a low level then standards of EU countries. According to Statistical Office of Kosova (2010) the level of employment in 27 EU countries is 64.6%.

Employment in the Danmark is 78.1%, Norway 78.0%, Netherlands 77.2% and 79.5% in Switzerland.

Employment in candidate states for EU. Turkey is 44.3%. Croatia has 56.6%. and Macedonia has 43.3%,.

In neighboring countries the employment rate for 2009 was: 53.8% in Albania, Montenegro 41.3%, Serbia 53.7%, in Bosnia and Herzegovina 33.1%.

#### **4.1.3.Living standard**

In the table 2 is presented general consumption in Kosovo in milion € for period 2003 – 2009.

***Table 2. General consumption in Kosovo 2003 – 2009***

<b>Year</b>	<b>Milion €</b>	<b>Household consumption €</b>	<b>Consumption per capita €</b>
2003	1493	5400	840
2004	1529	5600	910
2005	1549	5900	950
2006	1414	5700	980
2007	1413	5700	980
2008	1798	6707	1156
2009	1911	6847	1160

*Data from annual reports of Statistical Office of Kosova; Statistics of living standards 2003- 2005 and Household Budget Survey 2006, 2007, 2008 and 2009.*

Results from the Table 2 show that household consumption has been increased during 2003 to 2009 years, despite 2006 and 2007.

Increasing level is seen by approximately 3.7 % between years 2003 and 2004 and 5.4% between 2004 and 2005.

Year 2006 shows a decrease of 3.4% , same level has year 2007. Year 2008 and 2009 show an increase level of consumption for 17.7%, respectively 2.1%.

Consumption per capita also has increasing direction through years 2003 – 2009. The biggest increase of consumption per capita is seen in the year 2008 with 17.9%, while in the year 2009 increase rate is only 0.35%.

According data from annual and periodical reports of Statistical Office of Kosova consumption by category shows that housing, recreation, hotels and restaurant are increasing every year during the period, while food and soft drink are decreasing from year to year. Also furniture are in decrease tendency from year 2005.

Urban households are increasing their budget for recreation, hotels, restaurants and health care.

#### **4.1.4.Coefficient of correlation**

Coefficient of correlation measure the relationship between two variables. Possible correlations can be from +1 to -1. Correlation of 0 indicates that there is no relation between the variables.

A correlation of -1 indicates a perfect negative correlation which mean that when one variable goes up, other goes down. A +1 correlation indicates a perfect positive correlation, meaning that the two variables move in the same direction together.

In our study is measure relationship between total employment in Kosovo during 2003 to 2009 with general consumption for the same period.

Also we have measure relationship between employment by level of education and consumption of the household with same level of education.

***Table 3. Coefficient of correlation between Consumption and Employment and Employment by Education***

Consumption	Employment vs Consumption	Employment vs Consumption by education		
		Tertiary	Upper secondary	<Upper secondary

Food and soft drinks	-0.216	-0.009	0.297	0.345
Alcohol and tobacco	0.743	-0.187	-0.093	0.719
Clothing	0.979	0.206	0.459	0.484
Housing	-0.293	-0.006	-0.273	-0.748
Furniture	0.023	-0.621	-0.069	0.061
Health	0.134	0.106	-0.544	0.088
Transport	0.593	-0.025	-0.198	0.020
Communication	0.708	-0.470	0.034	0.281
Recreation	0.316	0.495	0.201	-0.046
Education	-0.019	0.849	0.526	0.523
Hotel and restaurants	-0.049	-0.181	-0.570	-0.260
Other	0.322	-0.340	-0.380	0.096

*Data from annual reports of Statistical Office of Kosova; Statistics of living standards 2003- 2005 and Household Budget Survey 2006, 2007, 2008 and 2009.*

Household consumption in Kosovo is changing from year to year by category of consumption (Table 3.).

Correlation coefficient shows that employment and consumption in some category of consumption goes in same direction (has positive relationship between variables) for example: alcohol and tobacco, clothing, transport, communication and recreation.

Some category of consumption shows negative relationship: food and soft drinks, housing, education, hotel and restaurant.

It means that employment has positive impact to the individuals on consumption of some articles. Employed people spend more money on luxury goods such as alcohol and tobacco, clothing, transportation and recreation.

Relationship between employment by category of education and consumption of households by education vary on the type of consumption and by the category of education.

Peoples with high education spend more money for the education (0.849) while in the other category of education the relationship is significantly lower. Recreation to the category of employment with higher education is 0.495, while in the category of *upper secondary* shows 0.201 and in third category recreation shows negative relationship. Most of the consumption category shows negative relationship with employment by level of education.



## 5.Conclusion

Findings shows that household consumption in Kosovo is changing from year to year, being transformed from the dominance in food consumption, in the consumption of housing, clothing and transportation.

Also urban households and households with higher education are increasing their budget for recreation, hotels, restaurants, health care and in reducing the amount of savings available for investment in capital or in knowledge creating activities.

### 5.1.Recommendations

Creation of job opportunities should be the focus of policymakers and development strategy in Kosovo. Creating an attractive surrounding for investment is more than necessary in order to reduce the high unemployment rate and employment creation perspective for the new generations entering the labor market.

Unemployment in Kosovo is mainly due to the inherent level of economic development, so the key issue is the creation of an appropriate macroeconomic policy to provide the conditions for national labor market action, which is able to maintain the current affairs and create new jobs.

*A job creation policy –increasing the possibilities of productive work for Kosovars - is a key problem and should be targeted by the strategy of economic and social development. This strategy is not yet in place and that represents a serious obstacle to building a more logical correlation between economic policy, employment policy and social policy, which should lead to a more employment-friendly climate and sustainable employment-increasing trends. (Riinvest 2003).*

With a high rate, unemployment in Kosovo will be the problem of Kosovo society for a long time. Therefore, this problem should be a priority for all institutions in Kosovo.

In order to increase employment and economic sustainability is necessary to create a strategy by combining economic, social and employment policy.

Also, low levels of highly educated persons is a challenge for the future, that simultaneously relates to employment / unemployment.

Despite this increasing the overall quality of education in sundergraduate education and university is necessary to avoid inflation of credentials.

**References:**

- Bean, C. and C.A. Pissarides.. Unemployment, Consumption and Growth, European Economic Review 37: 837–859. 1993.
- Blanchard, O. and W. Justin. Shocks and Institution in the Rise of European Unemployment: The Aggregate Evidence, Economic Journal 110(1): 1–33., 2000.
- Mustafa, Isak, “The economic growth and business development impact, on reducing unemployment and poverty, at national and international level”, The tenth jubilee international conference - Business and employment, p.40 – 66. Pristina, 2011.
- Riinvest, LABOUR MARKET AND UNEMPLOYMENT IN KOSOVA (Research Report).Pristina, 2000.
- Statistical Office of Kosova, Statistics of Living Standards 2003- 2005, Pristina,2006.
- Statistical Office of Kosova, June, Statistics of Living Standards 2006, Pristina.2008
- Statistical Office of Kosova, November, Statistics of Living Standards 2007, Pristina, 2008.
- Statistical Office of Kosova, July 2009, Household Budget Survey 2008, Pristina, 2009.
- Statistical Office of Kosova, June 2010, Household Budget Survey 2009, Pristina, 2010.
- Statistical Office of Kosova, August 2004, Labour Market Statistics 2003, Pristina, 2004.
- Statistical Office of Kosova, August 2005, Labour Market Statistics 2004, Pristina, 2005.
- Statistical Office of Kosova, August 2006, Labour Market Statistics 2005, Pristina, 2006.
- Statistical Office of Kosova, September 2007, Labour Market Statistics 2006, Pristina, 2007.
- Statistical Office of Kosova, August 2008, Labour Market Statistics 2007, Pristina, 2008.
- Statistical Office of Kosova, November 2009, Labour Market Statistics 2008, Pristina, 2009.
- Statistical Office of Kosova, July 2010, Labour Market Statistics 2009, Pristina, 2010.
- The World Bank, Kosovo, Living Standards Measurement Study Survey 2000, Poverty and Human Resources Development Research Group October 2001.